Figure 1. NEMS Model Structure: The EMM, RFM and WES Ecpdat Westech Wesarea Weslice • Regional multiplier • Buffer zone (T&D) adder (varies by technology) • General performance and cost data • National capacity factor Time slice Wind resource • Load capacity credit Resource characterization subperiods characterization • Intermittent constraints Input Data New capacity additions RFM via WES **EMM** tracks available resource makes capital cost adjustments Calculations • class 6, zone 1 then 2 then 3 • learning curve and optimism • class 5, zone 1 then 2 then 3 • generic regional multiplier and • class 4, zone 1 then 2 then 3 • national/regional supply constraints Output Data selects capital cost adjustments calculates capacity credit (based on remaining resource) • 0.75 * capacity factor of peak timeslice Amount of available resource • buffer zone (T&D) adder calculates busbar cost of energy (highest class/zone first) • national/regional supply constraints • includes T&D adders calculates regional, timeslice CFs Capital cost adjustments assesses intermittent constraints Regional capacity factor selects new capacity additions (nine timeslices) Input Data National and regional supply constraints Rendat